

**Notice of Allowability**

Application No.

10/731,140

Applicant(s)

KASHIO ET AL.

Examiner

Art Unit

Nitin Patel

2629

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/10/2003.
2. ☒ The allowed claim(s) is/are 1-26.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 12/10/2003
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

Nitin Patel

### **REASON FOR ALLOWANCE**

1. Claims 1-26 is allowed.
2. The following is an examiner's statement of reason for allowance:

Furutani U.S. Patent No. (6,642,912) teaches in fig.7 a driving method includes a sub field T1 having a preliminary discharge period T2, a scan period T3, a sustaining period T4 and a wall charge adjustment period T11, this is the same as conventional method shown in fig.1 except that the wall charge adjustment period T11 is additionally provided between the preliminary discharge period T2 and the scan period T3.

Kim U.S. patent No. (7,009,584) shows in fig.5, in the address period, scan pulse is applied to the scanning electrode Y and data pulse DP is applied to the address electrode X at the same time, thereby causing an address discharge. This address discharge produces a wall electric charge and then the wall electric charge is sustained while the other discharge cells are addressed. At this time data pulse applied to the address electrode X is characterized by selecting any one of positive and negative data pulses and applying it. The data pulse selection is changed with response to the on/off states of cell. When positive wall electric charges are formed at the address electrode X and negative wall electric charges are formed at the scanning electrode Y and the sustain electrode Z through the set down of reset period of the first sub field state of the cell becomes off state.

Ishizuka U.S. patent No. (6,696,794) teaches inserting a pre discharge erasing voltage holding time of more than five microseconds after a potential change of a pre discharge erasing pulse and by inserting a pre sustaining erasing period between the

Art Unit: 2629

scanning period and the sustaining erasing period, the residual wall charge is made constant regardless of the discharge characteristic of each cell and it becomes possible to reduce the erroneous discharge without eliminating the effective voltage distribution due to superposing the residual wall charge and the scanning voltage.

The prior art fails to teach or suggest a method of driving a plasma display panel comprised of (A) a first substrate including at least one first electrode, and at least one second electrode extending in parallel with said first electrode and defining a display area with said first electrode therebetween, and (B) a second substrate including at least one third electrode facing said first and second electrodes and extending perpendicularly to said first and second electrodes, wherein a display cell is arranged at each of intersections of said first and second electrodes with said third electrode, said method including: **(a) applying a serrate voltage having an inclined waveform in which a voltage varies with the lapse of time, to at least one of said first and second electrodes; and (b) applying a preliminary charge-eliminating pulse voltage to at least one of said first and second electrodes after said a charge-eliminating discharge has been generated due to said serrate voltage, wherein said preliminary charge-eliminating pulse voltage eliminates electric charges only when electric charges have not been sufficiently eliminated** as claimed in claim 1.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nitin Patel whose telephone number is 571-272-7677. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin H. Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit 2629

